

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A biosensor for determination of an analyte concentration in a test sample comprising:

a working electrode and a counter electrode;

a mixture for electrochemical reaction with an analyte, said mixture including an enzyme, a mediator, and an oxidizable species as an internal reference, the oxidizable species being different than the mediator species and having different redox potentials, said mixture being located as a single layer on a surface of at least a portion of the working electrode and the counter electrode prior to the introduction of the test sample.

2. (Previously Presented) The biosensor of claim 1 wherein said internal reference is a reduced form of a reversible redox couple that has a higher redox potential than that of said mediator.

3. (Previously Presented) The biosensor of claim 1 wherein said mediator comprises 3-phenylimino-3H-phenothiazine.

4. (Previously Presented) The biosensor of claim 3 wherein said internal reference comprises ferrocyanide.

5. (Previously Presented) The biosensor of claim 4 wherein said ferrocyanide and said mediator are oxidized at a first voltage potential and only said mediator is oxidized at a second voltage potential, said second voltage potential being less than said first voltage potential.

6. (Previously Presented) The biosensor of claim 5 wherein said first voltage potential is about 400 mV and said second voltage potential is about 100 mV.

7. (Cancelled)

8. (Cancelled)

9. (Previously Presented) The biosensor of claim 1 wherein said mediator comprises ruthenium hexamine.

10. (Previously Presented) The biosensor of claim 9 wherein said internal reference comprises ferrocyanide.

11. (Previously Presented) The biosensor of claim 10 wherein said enzyme comprises glucose oxidase.

12-20. (Cancelled)

21. (Currently Amended) A method of forming and ~~placing~~ applying a reagent mixture for an electrochemical reaction with an analyte of a fluid sample in a biosensor, the biosensor having a working electrode and a counter electrode, the method comprising:

forming a batch of reagent mixture by adding an enzyme, adding a mediator and adding an oxidizable species, the added oxidizable species being added separately from the mediator; and

after forming the reagent mixture, placing the reagent mixture at least partially on a surface of the working electrode and the counter electrode of the biosensor prior to the introduction of the fluid sample.

22. (Previously Presented) The method of claim 21 wherein said internal reference is a reduced form of a reversible redox couple that has an equal or higher redox potential than that of said mediator.

23. (Previously Presented) The method of claim 21 wherein said mediator comprises 3-phenylimino-3H-phenothiazine.

24. (Previously Presented) The method of claim 23 wherein said internal reference comprises ferrocyanide.

25. (Previously Presented) The method of claim 21 wherein said internal reference and said mediator are oxidized at a first voltage potential and only said mediator is oxidized at a second voltage potential, said second voltage potential being less than said first voltage potential.

26. (Previously Presented) The method of claim 21 wherein said internal reference and said mediator are oxidized at a first voltage potential and only said mediator is oxidized at a second voltage potential, said second voltage potential being higher than said first voltage potential.

27. (Previously Presented) The method of claim 21 wherein said mediator comprises ruthenium hexamine.

28. (Previously Presented) The method of claim 27 wherein said internal reference comprises ferrocyanide.

29. (Previously Presented) The method of claim 28 wherein said enzyme comprises glucose oxidase.

30. (Previously Presented) The method of claim 21 wherein the oxidizable species is different than the mediator species and has different redox potentials.

31. (Previously Presented) The method of claim 21 wherein the mediator comprises ferricyanide.

32. (Previously Presented) The method of claim 31 wherein the internal reference comprises ferrocyanide.

33-36. (Cancelled)

37. (Previously Presented) The biosensor of claim 1 wherein the mixture includes only one enzyme.

38. (Currently Amended) The method of claim [[1]] 21 wherein the reagent mixture includes only one enzyme.

39. (New) A biosensor for determination of an analyte concentration in a test sample comprising:

a working electrode and a counter electrode;
a mixture for electrochemical reaction with an analyte, said mixture including an enzyme, a mediator, and an oxidizable species as an internal reference, the oxidizable species being different than the mediator species and having different redox potentials, said mixture being located as a single layer on a surface of at least a portion of the working electrode prior to the introduction of the test sample.